Two new Margarodidae (Homopt.: Coccoidea) from Kenya.

by

G. DE LOTTO

Department of Agriculture, Kenya.

The following descriptions are published in order to provide nomenclatural status to two new species of Margarodidae from Kenya submitted to Dr. S. Hughes-Schrader of the Columbia University, New York, for cytological investigation.

The holotype of each species has been deposited in the British Museum (Natural History), London; one paratype in the U.S. National Collection of Coccidae, Washington, D. C. The remainder are in the collection of the Department of Agriculture, Nairobi, Kenya.

Icerya bimaculata sp.n. (fig. 1).

Living adult females before laying ovisac, elongate oval, moderately convex, covered by cottony wax, pure white in colour; with two red-orange spots on dorsum of thorax, represented by two small roundish areas devoid of any wax covering. Margin of body provided with a series of well developed tufts of cottony wax; these tufts are short and stout on head and thorax and tend to be progressively longer and more slender towards posterior extremity; most posterior tufts noticeably longer than the body. Ovisac large, rounded behind, strongly convex, extending slightly beyond apex of posterior wax appendages, which often become obliterated or broken away at this stage. Length 10—12 mm.

Mounted specimens elongate oval with dermis membranous. Thoracic spiracles large, without any cluster or band of pores; abdominal spiracles small, three on either side of body. Ventral cicatrices three; median elliptical, laterals rounded; all having a fairly chitinized thick rim and a plain surface. Large glands with open centre of type (*a*), normally with seven large peripheric loculi; but a few are found to have four, or five, or six, or eight loculi. They are arranged in clusters on the ventral marginal area of all abdominal segments; on meso- and metathorax they are very numerous extending from the margin of the body to the attachment of median and hind legs; on the prothorax and head they are again restricted to the ventral marginal area only. Circular glands of type (*b*) fairly strongly chitinized and provided with a series of small elongate peripheric loculi; very numerous on median and submedian

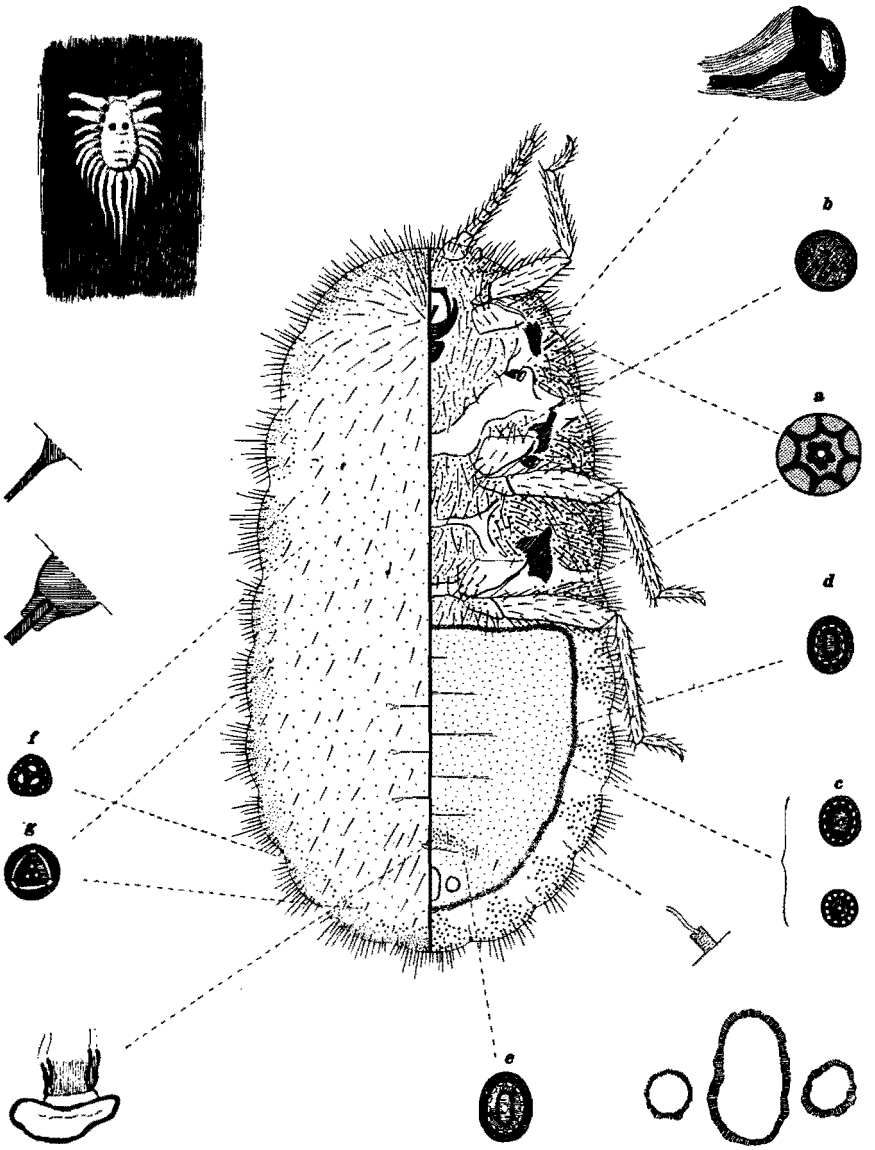

Fig. 1 - *Icerya bimaculata* sp.n.

ventral areas of the thorax and head. Ventral abdominal ovisac band well developed, continuous, five to seven pores wide; no setae are inserted among the pores. These pores (*c*) are rather variable in size and shape, rounded or elongate, highly chitinized and with a series of small peripheric loculi. Ventral abdominal area circumscribed by the ovisac band with numerous, uniformly distributed glands of type (*d*). A cluster of glands of type (*e*), structurally identical with those of type (*d*), but somewhat larger, occurs in front of genital opening and along distal margin of the preceding segment. Dorsal glands of two types. Those of type (*f*), having a series of very small peripheric loculi, very numerous along the marginal area, forming an irregular, nearly continuous band; others scattered all over dorsum. Glands of type (*g*) with three very elongate, narrow peripheric loculi, set in an irregular band one pore wide, just lateral to the marginal band formed by the pores of type (*f*); a few are widely distributed all over the dorsum. Body setae with a truncate conical basal collar, slender and tending to be arranged in tufts on the margin of all body segments; very numerous long similar setae occur on the median, submedian and submarginal ventral areas of the thorax and head. Setae on the ventral abdominal area within the ovisac band very small and few. Setae on the dorsum rather long and numerous. Setae, with a spherical or conical base, very small and distributed without any peculiar pattern on either side of the body. Anal opening with a strongly chitinized ring devoid of any band of pores. Legs all very strongly chitinized, long and slender; coxae with three to four sensoria on either side; claws finely pointed; ungual digituli small, setulose, not surpassing the apex of the claw. Beak one segmented, short, with some small setae slightly swollen apically. Antennae with eleven joints, except in one specimen in which one antenna was reduced to nine joints only.

KENYA. Nairobi: 13.i.1951 and 20.viii.1958, six mounted adult females collected on the underside of leaves of *Chaetachmae aristata* Planch. (G. De Lotto). Coll. No. 373 and 2393.

By the structure of the large ventral glands with an open centre this species comes close to *I. schoutedeni* described by Vayssière in 1926 from specimens attacking *Acalypha wilkesiana* Muell. in the Belgian Congo. The two species can be separated by some characters of the ovisac band, which in *schoutedeni* is only 3 to 4 pores wide and many setae are intermingled with them, whilst in *bimaculate* the band is 5 to 7 pores wide and no setae are associated with them.

Kuwania oligostigma sp.n. (fig. 2).

Living adult females naked, deeply sunk in the bark of the host plant; colour evenly dark pink. Mounted females elongate oval; dermis membranous at maturity, with the antennae and all legs slightly chitinized. Length 3—4 mm. Large circular glands with slender inner ducts, occur on ventral side of the last five abdominal segments; they are distributed without any peculiar pattern, but become progressively more numerous on most posterior segments; a few

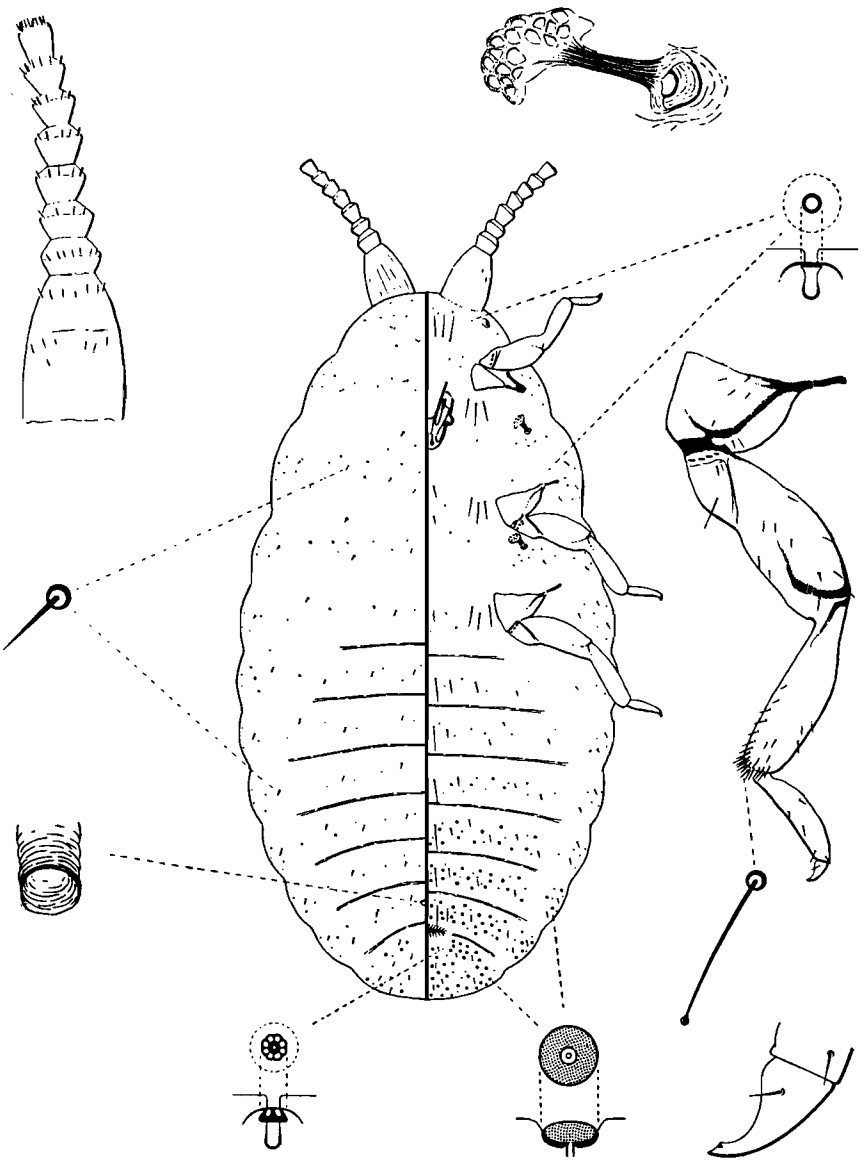

Fig. 2. - *Kuwania oligostigma* sp.n.

occur on the dorsal side of the last abdominal segment. Small multilocular glands with single inner ducts few and scattered on the ventral side of the last and penultimate abdominal segments. Small tubular glands are scattered on either side of the body. Body setae few, slender, finely setulose; two to four long setae are inserted near the attachment of each leg and antenna; setae close to the ventral median line of the abdomen are also fairly long; all remaining setae very short and scattered. Legs all well developed but poorly chitinized; coxae with three to five sensoria on either side; distal end of tibiae with a tuft of small setae knobbed at the apex; claw with a small denticle; ungual digituli short, not exceeding the length of the claw, setulose. Antennae close together, nine-segmented; first and second joints much enlarged, remainder moniliform; setae on all joints very short; a couple of rather stout sensory setae is inserted on the fifth to eighth joints; apical joint with three or four sensory setae. Thoracic stigmas well developed without any cluster or band of pores. Abdominal stigmas entirely absent. Mouth parts often broken away. Anal tube simple, with no band of pores. Ventral cicatrices absent.

KENYA. Sultan Hamud: 19.viii.1956, eight mounted adult females collected on stem and branches of an unidentified species of *Commiphora* (G. De Lotto). Coll. No. 2064.

Kuwania oligostigma departs from all other congeneric species by the total absence of abdominal spiracles in all stages of its development. This is the first representative of the genus *Kuwania* found in the Ethiopian region so far.

REFERENCES

MORRISON H. (1928). A classification of the higher groups and genera of the coccid family Margarodidae. — *Tech. Bull. U. S. Dept. Agric.* No. **52**, pp. 1-239, illus.

VAYSSIÈRE P. (1926). Contribution à l'étude biologique and systématique des coccides. — *Ann. Épiph.*, **12**: 197-382, illus.